REMARKS

The present remarks are in response to the December 14, 2006 Office Action where the Examiner rejected all of the examined claims. Claims 14-23 and 25-30 are pending for consideration, and claims 1-13 and 31-47 have been withdrawn due to an Election/Restriction requirement. Claim 24 was previously canceled. Claims 14-23 and 25-30 were rejected under 35 U.S.C 103(a) as being allegedly unpatentable over U.S. Patent No. 6,492,005 (hereinafter "Ohbayashi") in view of U.S. Patent No. 6,129,785 (hereinafter "Schliesman") and U.S. Published Patent Application No. 2003/0064206 (hereinafter "Koyano").

REJECTIONS UNDER 35 U.S.C. 103(a)

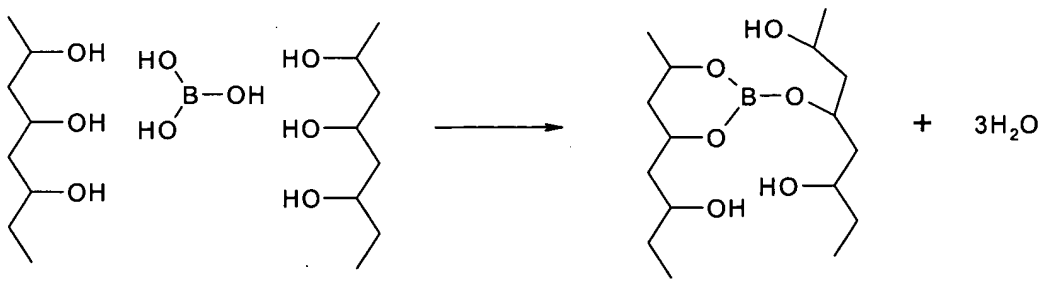
Claims 14-23 and 25-30 were rejected under 35 U.S.C 103(a) as being allegedly unpatentable over Ohbayashi in view of Schliesman and Koyano. Before discussing the obviousness rejections herein, it is thought proper to briefly state what is required to sustain such a rejection. The issue under § 103 is whether the PTO has stated a case of *prima facie* obviousness. According to the MPEP § 2142, the Examiner has the burden and must establish a case of *prima facie* obviousness by showing the prior art reference, or references combined, teach or suggest all the claim limitations in the instant application. Further, the Examiner has to establish some motivation or suggestion to combine and/or modify the references, where the motivation must arise from the references themselves, or the knowledge generally available to one of ordinary skill in the art. The Applicant respectfully asserts the Examiner has not satisfied the requirement for establishing a case of *prima facie* obviousness in any of the rejections. The Examiner has not shown each and every claim limitation in the prior art. Specifically, the alkali metal present in the ink-receiving layer at from about 0.4 wt% to about 10 wt% has not been shown. Additionally, gas generated bubbles located within the ink-receiving layer has not been shown.

Ohbayashi teaches an ink-jet recording sheet with a recording layer containing a binder and inorganic particles. Ohbayashi further teaches generally of the use of a polyvinyl alcohol or derivative thereof as a binder, boric acid as an additive hardening agent, and potassium carbonate as a pH-adjusting agent. Schliesman is cited to show ink

jet recording mediums having a coating composition with a pH range of 4.0 to 7.0. Koyano is cited by the Examiner to show lithium compounds used as pH controlling agents. Koyano specifically teaches the use of lithium hydroxide and lithium carbonate as effective pH controlling agents.

None of the references teach the alkali metal being present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%, as claim 14 requires. The potassium carbonate of Ohbayashi cited by the Examiner is taught as an additive amongst a laundry list of other possible additives such as anti-fading agents, whitening agents, surface active agents, anti-foaming agents, lubricants, antiseptics, thickeners, antistatic agents, matting agents, and UV absorbers. Ohbayashi does not go into greater detail other than this brief listing, and certainly does not teach the required weight percentages. Likewise, neither Schliesman nor Koyano teach the required weight percentages included in the ink-receiving layer. Koyano does exemplify use of lithium hydroxide in various amounts, which is not applicable to the present invention, as lithium hydroxide is not a weak base. As none of the references, either alone or in combination, teach the distinct and recited claim element of an alkali metal present in the ink-receiving layer at from about 0.4 wt% to about 10 wt%, a *prima facie* case of obviousness has not been presented.

Furthermore, and even more notably, none of the references, either alone or in combination, teach the gas generated bubbles in the ink receiving layer. The gas generated bubbles of the present invention are generated by reacting an acid with a weak base comprising a salt of an alkali metal and a weak acid. The Examiner relies solely on an inherency argument in that due to the presence of potassium carbonate and boric acid as presented in Ohbayashi, they would react and form bubbles of the claimed diameter. However, this is not the case. Ohbayashi teaches boric acid as being used as a hardening agent for polyvinyl alcohol (a reaction that is well known). Such a reaction is shown by the following reaction schematic:



As shown above, when boric acid is used in this fashion, it is consumed during the cross-linking process. Therefore, boric acid could not subsequently react with potassium carbonate to generate the gas bubbles as recited in independent claim 14. In other words, Ohbayashi cannot use boric acid in the manner alleged by the Examiner since boric acid is consumed (and neutralized) during the cross-linking reaction. As previously noted, the use of boric acid in this fashion (as a hardening agent) is well-known in the art. Therefore, based on the teachings of Ohbayashi, boric acid could not be used to generate gas bubbles. Additionally, neither Schliesman nor Koyano teach the generating of gas bubbles. As none of the references, either alone or in combination, teach the distinct and recited claim element of generated gas bubbles in the ink-receiving layer, a *prima facie* case of obviousness has not been presented.

Even if the potassium carbonate and the boric acid of Ohbayashi were chosen from amongst many possibilities, it is worthy to note that Ohbayashi does not teach or suggest that such a combination generates gas bubbles within the layer. As previously discussed, Ohbayashi teaches the use of boric acid as a hardening agent. If potassium carbonate was added to the mix and the boric acid reacted with the potassium carbonate, such a reaction would frustrate the hardening described in Ohbayashi, thereby destroying the function of Ohbayashi.

Additionally, the Examiner has stated that "the use of lithium containing pH adjusting agent such as lithium carbonate is well known . . ." in citing Koyano. However, a close inspection of Koyano reveals that such compounds are used to maintain the pH near neutral or even as a basic solution. See [0156]. Therefore, one skilled in the art would not use such a well-known basic compound to achieve the acidic pHs as found in dependent claims 22 and 23 or the excess acidic solution found in claim 15. Likewise, one skilled in the art would not use a basic pH adjuster, including the potassium carbonate, of Ohbayashi. As such, with regards to dependent claims 15, 22, and 23, the present rejection would not only destroy the functionality of the gas bubble formation but would also destroy the functionality of achieving the recited pH.

The present combination does not teach each and every element of the present invention. Specifically, the alkali metal present in the ink-receiving layer at from about 0.4 wt% to about 10 wt% and the gas generated bubbles in the ink-receiving layer have

not been shown. Therefore, as the Examiner has not presented a *prima facie* case of obviousness, the Applicant requests the removal of the rejection.

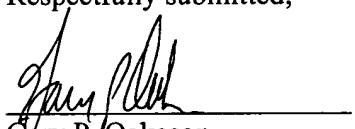
CONCLUSION

In view of the foregoing, the Applicants believe that claims 14-23 and 25-30 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone Brad Haymond at (541) 715-0159 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 14th day of March, 2007.

Respectfully submitted,



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